

Release notes for ENDF/B Development e-088\_Ra\_000  
evaluation

**ENDF**  
**B-VII**.dev

October 13, 2016

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-088\_Ra\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Ra + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Ra [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Ra [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Ra + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Ra [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Ra1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 104320. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Ra2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 19232. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Ra2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 18560. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Ra2p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 15456. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Ra3s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4795.1 eV!
9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Ra3p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4482. eV!
10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Ra3p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3773.7 eV!
11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Ra3d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3258.7 eV!
12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Ra3d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3111.3 eV!
13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Ra4s1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1189.7 eV!
14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Ra4p1/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1048.6 eV!
15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Ra4p3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 867.3099999999999 eV!
16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Ra4d3/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 636.77 eV!
17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Ra4d5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 603.0599999999999 eV!
18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Ra4f5/2$  / Cross section: (Error # 0): Threshold mismatch*
- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 299.7 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Ra4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 291.19 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Ra5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 253.63 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Ra5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 200.32 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Ra5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 159.83 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Ra5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 81.31999999999999 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Ra5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 75.52 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Ra6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 39.54 eV!

26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Ra6p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 24.88 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Ra6p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 18.62 eV!

28. Calculated and tabulated thresholds don't agree  
*reaction label 27:  $e^- + e^- + Ra7s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.73 eV!

• **xsectplotter** Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

```
stderr while processing crossSection
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    WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
... [4 more lines]
```